

Title (en)

RAIL SENSING APPARATUS AND METHOD

Title (de)

SCHIENEN-MESSVORRICHTUNG UND -VERFAHREN

Title (fr)

APPAREIL ET PROCEDE DE DETECTION DE RAILS

Publication

**EP 1797409 A2 20070620 (EN)**

Application

**EP 05795984 A 20050912**

Priority

- US 2005032491 W 20050912
- US 60905304 P 20040911

Abstract (en)

[origin: WO2006031774A2] A rail sensing and analysis system utilizes a laser sensor 105, 107 to detect displacement of a rail 102, 104 resulting from loads imposed by a passing rail vehicle. Vertical and/or lateral displacements/loads may be sensed. Signatures in the resulting signals are indicative of useful information about the rail vehicle; such as wheel condition, bearing condition, truck condition, degree of bogie hunting, total load, load distribution, etc. The ratio of Lateral over Vertical force (L/V) may be used as an evaluation criterion.

IPC 8 full level

**G01M 17/00** (2006.01); **E01B 35/00** (2006.01)

CPC (source: EP US)

**E01B 35/00** (2013.01 - EP US); **G01M 17/10** (2013.01 - EP US)

Citation (search report)

See references of WO 2006031774A2

Citation (third parties)

Third party :

- EP 1448423 B1 20050608 - PIEPER SIEGFRIED [DE]
- EP 1234158 B1 20030827 - INNOTECH EUROP GMBH [DE]
- "Laserwaage nimmt "Fingerabdruck" von Zügen", WISSENSCHAFT.DE, 19 October 2001 (2001-10-19), pages 1 - 2, XP003023379
- KUSPERT D. ET AL: "MATTILD - Laserwaage für die Messung von Radlasten und Flachstellen am fahrenden Zug", LASERWAAGE, vol. 95, no. 1+2, 2003, pages 23 - 27, XP003023380
- "Laserscales Vorbemerkungen", HANDBUCH - LASERWAAGE LASCA, pages 1 - 11, XP003023381
- ANONYMOUS: "Mainline and Transit Train impact load detector MATTILD Technische Beschreibung", GE TRANSPORTATION SYSTEMS, 26 June 2003 (2003-06-26), pages 1 - 19, XP003023382

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2006031774 A2 20060323**; **WO 2006031774 A3 20060601**; AU 2005285009 A1 20060323; CN 101057128 A 20071017; EP 1797409 A2 20070620; US 2008304065 A1 20081211; US 8305567 B2 20121106

DOCDB simple family (application)

**US 2005032491 W 20050912**; AU 2005285009 A 20050912; CN 200580038336 A 20050912; EP 05795984 A 20050912; US 57503805 A 20050912